

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43*bis*.1)

Date of mailing
(day/month/year) see form PCT/SA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/001516

International filing date (day/month/year)
18.02.2004

Priority date (day/month/year)
28.02.2003

International Patent Classification (IPC) or both national classification and IPC
C01C3/02, B01J23/42

Applicant
DEGUSSA AG

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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JC20 Rec'd PCT/PTO 1 4 JUL 2005

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITYInternational application No.
PCT/EP2004/001516

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/001516

Box No. II Priority

1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2,4-6,8
	No: Claims	1,3,7
Inventive step (IS)	Yes: Claims	
	No: Claims	1-8
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

2. Citations and explanations

see separate sheet

SECTION V

1. Novelty and inventive step (Art 33(2) and (3) PCT)

1.1. Reference is made to the following documents:

D1: US-A-3 658 471
D2: DE 10 13 636 B
D3: US-A-5 767 036
D4: DE 919 769 C
D5: GB 958 784 A

1.2. The subject-matter of claims 1, 3 and 7 of the present application is not new and therefore the present application does not meet the requirements of Article 33 (2) PCT.

1.3. Document D1 discloses (in particular: column 1, lines 58-65 and column 1, line 74 - column 2, line 24) a process for making hydrogen cyanide from acetonitrile (a aliphatic hydrocarbon compound) and ammonia at a temperature of 1100-1400°C using for example a platinum catalyst comprising 5% palladium and further comprising aluminium nitride.

Hence, the subject-matter of claims 1, 3, and 7 is not new vis-a-vis D1.

1.4. Document D3 discloses (in particular: example 11) a platinum catalyst comprising tungsten and platinum-aluminium alloy.

Hence, the subject-matter of claim 7 is not new vis-a-vis D3.

1.5. Dependent claims 2, 4-6 and 8 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step because the features of claims 2, 4-6 and 8 seems to represent modifications obvious for the person skilled in the art. Furthermore, these features do not seem be associated with any special technical effect that would justify inventiveness.

1.6. Moreover, in light of document D2, the subject-matter of claims 1-8 does not seem

to involve an inventive step because D2 discloses solving the problem of sooting by using a catalyst different from the catalyst claimed in the present application in that it comprises rhodium instead of copper, silver, gold, palladium or tungsten. This difference does not seem to be important for solving the problem of sooting since both the present application and D2 solves this problem. Therefore, the subject-matter of claims 1-8, e.g. using copper, silver, gold, palladium or tungsten instead of rhodium, does not seem to involve an inventive step in light of D2.

- 1.7. Also in light of documents D4 and 5, the subject-matter of claims 1-8 does not seem to involve an inventive step because the disclosure of these documents differs from the subject-matter of claims 1-8 in that different doping agents are used. But since the problem of sooting is solved by D4 and D5 subject-matter of claims 1-8 does not seem to involve an inventive step vis-a-vis D4 or D5.
- 1.8. The applicant is requested to file amendments by way of replacement pages in the manner stipulated by Rule 66.8(a) PCT. In particular, fair copies of the amendments should be filed preferably in triplicate.
Moreover, the applicant's attention is drawn to the fact that, as a consequence of Rule 66.8(a) PCT the examiner is not permitted to carry out any amendments under the PCT procedure, however minor these may be.